GLOSSARY

AASHTO American Association of State Highway and Transportation Officials

ACofS Assistant Chief of Staff

AFCS Army Facilities Components System

AR Army Regulation

ASTM American Society for Testing and Materials

Army water terminal Army controlled harbor or port facilities

azimuth lateral deviation of a projectile

balk beam or rafter

batten narrow strip of wood

batter slope, as of an outer side of a wall, that recedes from top to bottom

batter pile pile driven at an angle for lateral support as fenders or part of a dolphin

beam maximum width of a vessel's hull

bearing pile pile carrying a superimposed load, which it transmits to the ground

bending moment algebraic sum of all moments located between a cross section and one end of a structural member. A bending moment that bends the beam convex downward is positive and one that bends it upward is negative

bent structural member or framework to strengthen a bridge or trestle

berm horizontal ledge cut between the face and top of an embankment to stabilize the slope by intercepting sliding earth

bilge curve of a ship's hull joining the side and bottom

bitt short metal or wooden post on the deck of a ship, used to secure mooring or other lines; usually in pairs

block and tackle apparatus or pulley, blocks, and ropes or cables used to haul or hoist heavy objects

boring break-bulk penetrating and piercing with a rotary tool miscellaneous goods that are packed in boxes, bales, crates, barrels, or drums; may include lumber, motor vehicles, pipe, steel, or machinery

breakwater wall built on the sea to protect shore area, harbor, anchorage, or basin from the action of water

bulkhead wall of embankment constructed in a tunnel or harbor to protect against water, gas, or fire

bulkhead limit line the line extending along the shore beyond which no solid-fill structure may extend; the bulkhead limit line and the pierhead limit line may coincide

buoy float moored in water to signal a channel danger below the water surface, or, to mark locations underwater.

caisson watertight structure with work carried on inside to block the entrance of a canal or dock, or a box with an open top fastened to the side of a ship for hull repairs

camel floating cluster of logs or a strongly constructed raft

cantilever projecting beam supported only at one end

catamaran boat with two hulls

catwalk narrow, raised platform or pathway used for passage to otherwise inaccessible areas, such as a raised walkway on a ship for use when decks are awash

caving mining procedure used when the surface is expendable, in which the ore-body is undercut and allowed to fall, breaking into small pieces that can be recovered

chamfer to cut off an edge or corner, or to cut a groove, or to flute

chock block or wedge placed under something to keep it from moving

cleat strip of wood or metal used to strengthen or support whatever it is connected to; a piece of metal with projecting arm

cofferdam temporary watertight enclosure built in water and pumped dry to expose the bottom, so construction can start

conduit any channel or pipe conducting the flow of water or other fluid

container vessel constructed or modified especially to ship containerized cargo; may or may not be self-sustaining

CONUS Continental United States

coring use of a core barrel (hollow length of tubing) to take samples from an underground formation during the drilling operation; used for core analysis

CPM critical path method

cradle framework or other raised place for supporting or restraining objects

cwt hundredweight

DA Department of the Army

deadman a buried plate, wall, or block attached at some distance from and forming an anchorage for a retaining wall; also known as an anchorage

dewater remove water from an enclosure or structure such as a river bed or a caisson

dike an embankment of earth or rock built on a levee to prevent floods

direct support role in which an engineer element is commanded by its parent unit; maintains liaison and communications with supported and parent units; may be task organized by its parent unit; provides dedicated support to a particular unit; responds to support requests from its supported unit; has work priority established by the supported unit; has spare work effort available to its parent unit; requests additional support from its parent unit; and receives logistical support from its parent unit

dolphin cluster of pilings in water used as a fender for a dock or as a mooring or guide for boats

drawhead group of rollers through which strip tubing or solid stock is drawn to form an angled section

dredge any of various machines equipped with scooping or scouring devices used to deepen harbors and waterways, and in underwater mining

dry dock a dock that can be kept dry for use during ship repairs

ELCAS elevated causeway system

end-bearing pile column with the point resting on rock or firm strata

expedient quick construction method appropriate for building temporary structures

F Fahrenheit

fairway open water of depth sufficient for navigation

fathom measure of length or depth consisting of 6 feet

fender a timber cluster of piles or a bag of ropes placed along a deck or bridge pier to prevent damage by anchoring ships or floating objects

fender pile pile driven on the outside edges of wharf structures to absorb the shock of ships movements and protect the pier structure

fetch distance wind travels to generate a wave

fiord narrow inlet of the sea between cliffs or steep slopes

fixed cranes cranes that are rigidly, usually permanently, attached to their supporting systems; examples are derricks and pedestal- and deck-mounted cranes

flange protruding rim or edge, with a collar, as on a wheel or a rope shaft; a side or lateral part

flukes parts of anchors which fasten into the ground

FM field manual

freeboard distance between the waterline and the uppermost full deck

frictional pile a column with resistance between itself and the soil into which it is driven. It transmits the load to the lateral soil

ft foot, feet

G2 Assistant Chief of Staff, G2 (Intelligence)

gantry crane frame-supported mobile crane; frame may be either rubber-tired or track supported

gate vessel shallow-draft vessel or platform equipped for use during the erection and/or repair of gates and for laying and retrieving anchors

groin barrier built out of a seashore or riverbank to protect the land from erosion and sand movements

gudgeon metal pivot at the end of an axle or staft, around which a wheel or other device turns

gunwale upper edge of a ship's side

gusset triangular insert

hawse part of the ship where the hawseholes are located to pull cables; also the arrangements of a ship's cables, starboard and port

high watermark the highest point that water reaches during high tide

hoist to raise or haul up

hopper large funnel to hold material until ready for dispersion

hydraulic operated, moved, or effected by a fluid, especially water, under pressure

HW heavyweight team

IAW in accordance with

ISO International Standardization Organization

jetting method of driving piles with points into sand by using a jet of oil to break the surface

jetty pier or other structure projecting out over a body of water to influence the current/tide or to protect a harbor or shoreline

keel principal bottom structural element of a ship, extending along the centerline for the full length of the ship

kip 1,000-pound load

ksi kips per square inch

LACV lighter air-cushion vehicle

lb pound(s)

LCM landing craft, mechanized

LCU landing craft, utility

lighter barge used for loading and unloading

line-haul equipment for containers equipment necessary for transport of containers from piers to storage and marshaling areas

littoral shore

LOC lines of communication

long-shore littoral current in the breaker zone moving currents essentially parallel to the shore, usually generated by waves breaking at an angle to the shoreline

LOTS logistics over the shore

low watermark lowest point that is exposed during low tides

LSD landing ship, dock

LST landing ship, tank

LST Ramp a concrete ramp specifically designed for the loading and unloading of a landing ship or tank (LST)

LW lightweight team

marine railway a rail system extending below navigable waters designed to bring harbor craft out of the water for repair

mastic mixture of finely powdered rock and asphalt used for construction

maul heavy, long-handled hammer used to drive spikes and pilings

mean high water the average height of the high waters over a 19-year period, for shorter periods of observations, corrections are applied to eliminate known variations and reduce the results to the equivalent of a mean 19-year value. All high water heights are included in the average where the type of tide is either semidiurnal or mixed. Only the greater high water heights are included in the average where the type of tide is diurnal.

mean low water average height of the low waters over a 19-year period; water level is computed the same as for mean high water

MHE materials handling equipment

miter beveled edge of a piece used to fit another to form a blocking structure, such as a water lock

mole massive land-connected, solid-fill structure of earth (generally revetted), masonry, or large stone; it may serve as a breakwater or pier

msl mean sea level

NAVFAC Naval Facility

NBC nuclear, biological, chemical

NL Navy lighter

OCE Office of the Chief of Engineers

palm flat inner face of an anchor fluke

pawl pivoted tongue or sliding bolt on one part of a machine that is adapted to fall into notches or interdental spaces on another part (as a ratchet wheel) so as to permit motion in only one direction

PERT Program Evaluation and Review Technique

pier structure with a platform projecting from the shore into navigable water for mooring vessels

pierhead limit line the line beyond which no structure of any kind may extend; the pierhead limit line and the bulkhead limit line may coincide

pile construction element placed in the ground to support a load or resist a lateral force

pile bent row of timber or concrete bearing piles with a joint pile cap; forms the part of a trestle that carries the adjacent ends of timber stringers or concrete slabs

pintle vertical pivot pin

POL petroleum, oils and lubricants

psi pounds per square inch

pusher a grade for which helper engines are needed to assist road grade locomotives

quay wharf or surfaced bank where ships are loaded and unloaded

quay wall the supporting structure for a stretch of paved bank or a solid artificial landing place beside navigable water for convenience in loading or unloading ships

quoin exterior angle of a wall or a member of that angle

ratchet wheel, usually toothed, operating with a catch of a pawl so as to rotate in one direction only

recompression chamber apparatus pressurized with air to decompress a diver or treat a related diving illness after surfacing

revetment facing on a soil or rock embankment to prevent scour by water or weather

riprap foundation of revetment in water or soft ground made up of irregularly placed stones

scou sea floor erosion caused by strong tidal currents

screed straight-edged sword or metal template, fixed temporarily to a surface as a guide in concreting or plastering

scuba self-contained underwater breathing apparatus

scupper drain on or below the deck of a ship that guides water on or through the side

sextant optical instrument used in navigation for measuring angles, especially of celestial bodies

sheet pile closely placed piles of wood, steel, or concrete driven vertically into the ground to obstruct lateral movement of earth or water

ship's channel the deeper part of a harbor, river, or strait designated, marked and maintained to permit the safe passage of ships

shim thin strip of material placed between two surfaces to obtain proper fit

shoal submerged elevation rising from the bed of a shallow body of water

slack term for condition of water between ebb and rip tides

slip narrow body of water between two piers

slurry free-flowing, pumpable suspension of fine solid material in liquid

span fragment from a rock surface removed by chipping or weathering

spillway passage in or about a dam or other hydraulic structure for escape of water

sprocket tooth on the periphery of a wheel or cylinder to engage in the links of a chain

spud-type barge piers self-elevating piers consisting of barge units that are supported by several spuds (caissons or legs); these piers are suitable for either temporary or semipermanent installations

surface supplied air diving equipment where the breathing air is supplied from compressors or storage facilities on the surface

swell ocean waves that have moved away from their generating area, relatively long in length and period and regular in character

TAACOM Theater Army Area Command

TASCOM Theater Army Support Command

TC training circular

tidal prism difference between mean high-tide volume and mean low-tide volume of an estuary

TM technical manual

TO theater of operations

TOE table(s) of organization and equipment

TR technical report

TRADOC United States Army Training and Doctrine Command

TRANSCOM Transportation Command

tremie device for placing concrete underwater; consists of a large metal tube with a hopper at the top end and a valve arrangement at the submerged end

trestle series of short spans supported by a bridge tower

trestle bent transverse frame that supports the end of the stringers in adjoining spans of a trestle

truck-mounted cranes cranes mounted on chassis similar, but usually much larger, to those used in the commercial trucking industry; standard equipment usually consists of large counterweights for load balancing and outrigged floats for equalizing pressure

turnbuckle sleeve with a thread at one end and a swivel at the other, or with threads of opposite hands at each end, so that by turning the sleeve, connected rods or ropes will be drawn together

wale horizontal component of a fender system; generally placed between the vertical fenders and the pier structure and used for horizontal distribution of forces from vessels

wildcat pocketed and slotted wheel on a winch over which a chain passes

warp to move a vessel or waterborne object from one place to another by pulling on lines fastened to a buoy

wharf structure of open construction built parallel to the shore, used by vessels for loading and unloading

weir dam in a waterway over which water flows

WF wide flange

winch machine with a drum for coiling cable, used for pulling or hoisting

windlass machine to raise or lower anchors, consisting of a horizontal drum with gearlike projections that engage links in the anchor chain

yawing rotary oscillation of a vessel around a vertical axis, approximately through its center of gravity

yd yard